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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/043,688 | 01/10/2002 | Mark Oscar Worthington | BTI2 | 9661 |
| 20995 | 7590 | 06/28/2005 | 00102203(USP2)P5X1 | |
| KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614 | | | EXAMINER HUBER, PAUL W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2653 | |

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,688

Applicant(s)

WORTHINGTON ET AL.

Examiner

Paul Huber

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-133 is/are pending in the application.
- 4a) Of the above claim(s) 1-38 and 53-133 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-44 and 49-52 is/are rejected.
- 7) ☒ Claim(s) 45-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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Applicant's election without traverse of Group III, claims 39-52, in the reply filed on April 11, 2005 is acknowledged.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The drawings are objected to for the following reason: in figure 4, the amplifier which produces RF 50 shows a plus sign and a negative sign, but only adds the signals (A+C) and (B+D) and as such should only have two plus signs. Appropriate correction is required.

Claim 41 is objected to because there is no positive antecedent basis for "the investigational feature".

Claim 49 is objected to because the claim does not end with a period.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 39-44 and 49-52 are rejected under 35 U.S.C. 102(a) as being anticipated by the admitted Prior Art, disclosed by the applicants in the specification, pages 1-8, in reference to figures 1-7.

Regarding claims 39 & 42-44, the admitted Prior Art discloses the method as claimed. A plurality of analog signals (A, B, C, D, E, F) are acquired from an optical disc assembly using one or more photo detectors 25-27. See figure 4. A first subset (A, B, C, D) of the plurality of analog signals are summed to produce a sum signal (RF or HF) 50. A second subset (E, F) of the plurality of analog signals are combined to produce a tracking error signal (TE) 52. Information used to operate an optical disc drive is then obtained from the tracking error signal (TE) 52. See page 7, lines 5-7, in reference to figure 6. The sum signal (RF or HF) 50 is converted to a digitalized signal. See figures 6 and 7.

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Regarding claim 40, the sum signal 50 includes perturbations (errors) indicative of an investigational feature (e.g., disc scratches on optical disc) positioned at a location of the optical disc assembly as claimed.

Regarding claim 41, as clear and understood, the investigation feature (detecting errors) is based on the digitized signal. See figure 7 which shows that error checking 46 is performed after A/D converting 42.


Regarding claims 49 & 50, one or more of the plurality of analog signals (e.g., A, B, C, D) are tapped directly at the one or more photo detectors 25, and the step of converting includes directing the signals into an analog-to-digital converter 42. The analog signals (A, B, C, D) are directed from the one or more photo detectors into a buffer amplifier (summing amplifier which produces RF 50; see figure 4) before processing by the analog-to-digital converter 42.

Regarding claims 51 & 52, one or more of the plurality of analog signals (e.g., A, B, C, D) are tapped after processing by an optical disc drive chip set (e.g., adders which produce $(A+C)$ and $(B+D)$), and the step of converting includes directing the signals into an analog-to-digital converter 42. The analog signals (A, B, C, D) from the optical disc drive set are then directed into a buffer amplifier (summing amplifier which produces RF 50; see figure 4) before directing the analog signals into the analog-to-digital converter 42.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the PTO-892 each disclose an optical information recording or reproducing apparatus including producing a sum signal from a photo detector.

Claims 45-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.


Paul Huber
Primary Examiner
Art Unit 2653

pwh
June 24, 2005